

REMARKS

Claims 1-13 are currently pending in the application. By this amendment, claims 1, 11, and 13 are amended. The above amendments do not add new matter to the application and are fully supported by the specification. For example, support for the amendments is provided at page 13, paragraph 2 and page 14, paragraphs 1 and 2 of the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

35 U.S.C. §112 Rejection

Claims 1-13 were rejected under 35 U.S.C. §112, 2nd paragraph. This rejection is respectfully traversed.

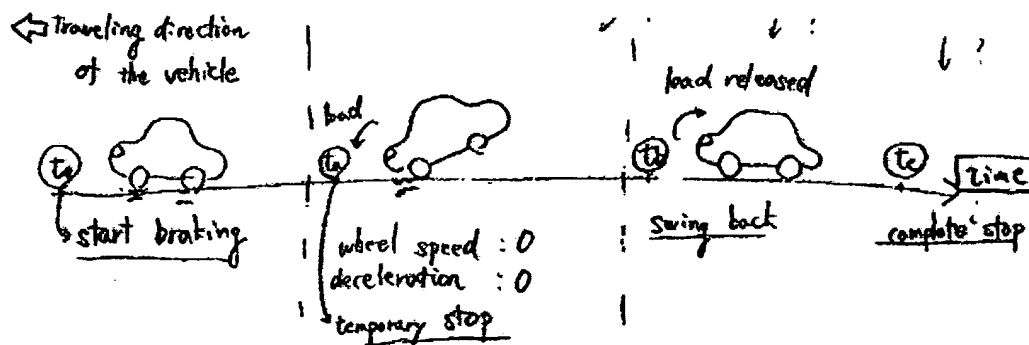
Claim 1, 11, and 13 have been amended to further clarify the differentiation that was discussed with the Examiner during the February 17, 2005 interview. Specifically, Applicant submits that the language of claims 1 and 13 is clear and definite. In particular, Applicant submits that, for example,

"as a vehicle stops and after a frontward force applied to the vehicle is released and prior to a stop of the vehicle"

is clear and definite and well supported by the specification. This language finds support in the specification, e.g., page 13, and is consistent with the remaining claims.

The following drawing, which was introduced in the previous response, is reproduced below for the convenience of the Examiner and to clarify what is being described by the Applicant.

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Applicant submits that the above-noted language clearly defines the timing with which the brake force distribution control is terminated. As shown in Fig. 2 of the present invention, at a time t_2 , the vehicle speed is below v_0 which is just prior to a complete stop of the vehicle. In addition, at a time t_2 , the frontward force applied to a vehicle is released by increasing the brake fluid pressure on the rear wheel side as shown by the dotted line. The time t_2 is captured as the time t_a in the drawing above, as it is the time at which the vehicle is coming to a stop and as a result, the forward momentum of the car creates a frontward force that is applied to the vehicle. The release of this frontward force causes a backward force which is the swing back motion of the vehicle, which is shown in the drawing above as time t_b . This entire process occurs *prior* to the complete stop of the vehicle, time t_c in the drawing above or time t_3 in Fig. 2, but *after* the release of the frontward force that is applied to the vehicle.

Furthermore, one skilled in the art would understand that the load applied ahead of the vehicle is equivalent to the frontward force applied to the vehicle. This is because the frontward force is the force that is applied on the front end of the car which arises from the front wheel brake having more braking power than the rear wheel brake. Hence, the "load applied ahead of the vehicle" is synonymous with the "frontward force applied to the vehicle".

Accordingly, such amendment to the claims does not add new matter, nor is such amendment made for overcoming any prior art rejection. Also, this is not a narrowing amendment.

Accordingly, Applicant respectfully requests that the rejection over claims 1-13 be withdrawn.

35 U.S.C. §102 Rejection

Claims 1-3, 10, 11, and 13 were rejected under 35 U.S.C. §102(b) for being anticipated by U.S. Patent No. 5,632,535 issued to Luckevich *et al.* Claims 1,4,5,10,11, and 13 were rejected under 35 U.S.C. §102(b) for being anticipated by U.S. Patent No. 5,938,299 issued to Hara *et al.* These rejections are respectfully traversed.

Argument over Luckevich et al.

The Examiner has pointed to column 5 lines 65-67 of Luckevich *et al.* as disclosing a situation wherein the distribution control is terminated immediately after the vehicle speed has reached a low speed limit. Applicant submits that the presently claimed invention is distinct from the system disclosed by Luckevich *et al.*, as Luckevich *et al.* disclose that a delay of one second is implemented prior to the termination of the brake distribution control. This delay of one second is implemented so that the vehicle can "come to a complete stop and for the driver to relax pressure on the brake pedal", (column 6 lines 4-6). Thus, the flow change resulting from the termination of the brake distribution control is not performed until *after* the delay is complete, (column 6 lines 11-12). Accordingly, Applicant submits that the brake distribution control of Luckevich *et al.* is terminated *after* the vehicle has come to a complete stop. In the present invention, the brake distribution control is finished *prior* to a complete stop of the vehicle, e.g., to match the swing back motion of the vehicle from the stopping motion and the swing back motion of the pedal resulting from the brake distribution control being terminated. Thus, the present invention is directed towards a time frame that is explicitly contrary to Luckevich *et al.*

Furthermore, the driver of Luckevich et al. is expected to relax pressure on the brake pedal of his own volition to avoid the sudden drop of the brake pedal, (see column 6 lines 4-6). However, in the present invention, the driver does not have to relax pressure on the brake pedal to avoid the sudden drop of the brake pedal, as the present invention is directed to alleviating this problem. By engineering the system to adjust the timing of the brake control distribution termination process, the sudden drop of the brake pedal can be disguised as part of the swing back motion of the vehicle as the vehicle comes to a complete stop. Thus, unlike the driver of Luckevich et al., the driver using the presently claimed invention is not expected to relax pressure on the brake pedal of his own volition.

Argument over Hara et al.

The Examiner has pointed to the types of conditions described in column 7 lines 42-56 of Hara et al. as being anticipatory to the claimed invention. Applicant respectfully disagrees with this analysis, noting that none of the types of conditions described in Hara et al. capture the actual timing nor the essence of the present invention.

Regarding condition (1), as stated above, the driver using the presently claimed invention is *not* expected to relax pressure on the brake pedal, and thus this condition does not apply. Regarding condition (2) and (3), the Examiner has declined to comment as to the relevancy of these conditions and thus Applicant presumes that the Examiner has agreed to their irrelevancy to the present invention.

Regarding conditions (4) and (5), these both relate to situations in which the forward motion of the vehicle is coming to a stop. However, Hara et al. do not discuss the release of the frontward force applied to the vehicle that is recited in claim 1 or claim 13. More specifically, Hara et al. do not discuss the swing back motion of the vehicle that the present invention is directed towards. In the braking procedure of the present

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invention, just prior to the stopping of a vehicle, there is a swing back motion as the vehicle jerks to a stop. This is the timing that is described by the release of the frontward force applied to the vehicle. There is no discussion by Hara et al. of such a release of the frontward force applied to the vehicle, and thus Applicant submits that Hara et al. do not teach all of the limitations of the present invention.

Dependent Claims

As to the dependent claims, Applicant submits that claims 2-5, 10, and 11 depend from distinguishable claim 1. Thus, these claims are also in condition for allowance. These features of these claims are also not shown in the prior art references. For example, neither Luckevich or Hara shows the control finishing prior to the stop of the vehicle.

Accordingly, Applicant respectfully requests that the rejection over claims 1-5, 10, 11, and 13 be withdrawn.

35 U.S.C. §103 Rejection

Claims 6-8 were rejected under 35 U.S.C. §103(a) for being unpatentable over Luckevich *et al.* Claim 9 was rejected under 35 U.S.C. §103(a) for being unpatentable over Hara et al. Claim 12 was rejected under 35 U.S.C. §1.03(a) for being unpatentable over Luckevich et al. or Hara et al. in view of U.S. Patent No. 6,030,056 to Sawada et al. These rejections are respectfully traversed.

Applicant submits that claims 6-9 and 12 are dependent claims, originating from distinguishable base claim 1. Applicant thus submits that these claims are also in condition for allowance.

Applicant further submits that these claims are also non-obvious on their own merits. Regarding the rejection of claims 6 and 7, Applicant refers the Examiner to the aforementioned discussion of Luckevich et al., in which it was pointed out that the brake

control termination is carried out *after* the delay of one second in Luckevich et al.

Regarding the rejection of claims 8 and 9, the predetermined wheel speed of 2km/h was chosen as one example of the time that still allows for the brake fluid to even out after the valves open but before the complete stopping of the vehicle. That is, the predetermined wheel speed of 2km/h was chosen as one example for the cutoff speed for the initiation of the brake force distribution control termination process, wherein the drop of the pedal can be masked with the swing back motion of the vehicle as the brake force distribution control is finished. Therefore, Applicant submits that neither Luckevich et al. or Hara et al. render the present invention obvious with regard to claims 8 and 9 since they provide no motivation for selecting 2km/h as a predetermined speed for initiating the brake force distribution control termination process.

With regards to the rejection of claim 12, Applicant submits that Sawada et al. merely teach the prevention the pitching motion of the vehicle itself, see Fig. 3, which is unrelated to the pitching motion of the present invention. In the present invention, the pitching motion is combined with the termination of the brake control distribution process so that the drop of the brake pedal is not as noticeable to the driver. If the pitching motion were removed from the present invention, it would defeat the purpose of trying to combine the swing back motion of the vehicle with the termination of the brake control distribution process as there would be nothing left to mask the drop of the brake pedal. Thus, Applicant submits that the combination of Sawada et al. and Luckevich et al. or Hara et al. would not render obvious the present invention.

Accordingly, Applicant respectfully requests that the rejection over claims 6-9 and 12 be withdrawn.

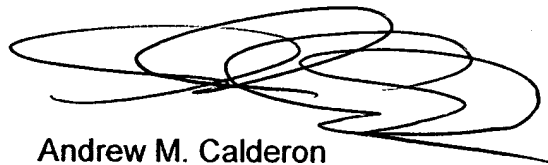
Serial No.: 10/756,392
Attorney Docket No. P27376

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CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 19-0089.

Respectfully submitted,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the bottom.

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